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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/679,660	10/06/2003	Bradley J. Eldred		4115

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EXAMINER

CHORBAJI, MONZER R

ART UNIT	PAPER NUMBER
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1744

DATE MAILED: 09/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/679,660	Applicant(s) ELDRED, BRADLEY J.	
	Examiner MONZER R CHORBAJI	Art Unit 1744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 July 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-66 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-66 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some    \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

**This final office action is in response to the amendment received on 07/16/2004**

#### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-3, 13, 15, 17-20 and 31-32 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In claim 1, line 5; applicant uses the phrase "or chemical equivalent thereof".

Such a limitation was not taught in the original disclosure. The same applies to claims 2-3, 13, 15, 17-20 and 31-32.

#### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

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1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
5. Claims 1-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over the specification in view of Terry et al (U.S.P.N. 6,596,401).

With respect to claims 1-3, the specification on pages 3-10 teaches that metals, plant extracts and alcohols have been used individually as disinfectants in the art of purifying water. Further, the specification on pages 5-6 teaches that it is known to combine metals and plant extracts and to combine metals and alcohols as compositions for treating water. The ('401) reference discloses combining such disinfectants in a composition that includes a metal (col.13, lines 59-67), a plant extract (col.16, line 2) and an alcohol (col.7, lines 43-45). The composition of the ('401) reference is used as an antimicrobial agent, i.e., disinfectant (col.6, lines 3-5). As a result, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine components known as being individual disinfectants as disclosed in the specification since such a combination when added together results in a composition having antimicrobial properties as taught by the ('401) reference (col.5, lines 23-32).

With respect to claims 4-12, the ('401) reference teaches that the metal can be copper or silver ((col.13, lines 59-67 and col.3).

With respect to claims 13, 15, and 17-18, the ('401) reference teaches that the plant extracts can be selected from grapefruit see extract, i.e., angiosperms (col.16, lines 1-2).

With respect to claims 14 and 16, the ('401) reference teaches that the use of glycerol is known (col.1, lines 55-56). Glycerin is a synonym for glycerol.

With respect to claims 19-21, the ('401) reference teaches a method of manufacturing the composition (col.1, lines 10-11), which includes a metal (col.13, lines 59-67 and col.3), a plant extract (col.16, line 2), and an alcohol (col.7, lines 43-45). For example, see example 7.

With respect to claims 22-30, the ('401) reference teaches a method of using the disinfection composition including the following: it is known to infuse the mixture into a user selected item (col.3, lines 47-49), applying the mixture onto the surface of a user selected item (col.4, lines 55-57), and dissolving the mixture into a user selected liquid (col.6, lines 8-10 such that algae can grow in aqueous systems such that it is necessary to dissolve the composition in the liquid in order to inhibit its growth). With regard to the concept of purification, the ('401) reference composition for example, purifies surfaces that may have algae thereon by inhibiting their growth.

With respect to claims 31-33, the ('401) reference teaches a method of manufacturing the composition (col.1, lines 10-11) by selecting a metal (col.13, lines 59-67 and col.14), selecting a plant extract (col.16, lines 1-2), selecting the alcohol (col.7, lines 33-35), selecting amines as a disinfectant compound (col.9, lines 4-47), and mixing the components together (a necessary step in order to form the composition).

With respect to claims 34-42, the ('401) reference teaches a method of using the disinfection composition including the following: it is known to infuse the mixture into a user selected item (col.3, lines 47-49), applying the mixture onto the surface of a user

selected item (col.4, lines 55-57), and dissolving the mixture into a user selected liquid (col.6, lines 8-10 such that algae can grow in aqueous systems such that it is necessary to dissolve the composition in the liquid in order to inhibit its growth). Regarding the concept of purification, the ('401) reference composition for example, purifies surfaces that may have algae thereon by inhibiting their growth.

With respect to claims 43-60, the ('401) reference teaches a method of using the disinfection composition including the following: it is known to infuse the mixture into the surface of a user selected item (col.3, lines 47-49), exposing the mixture applied to surface using radiation light (col.2, line 43, col.13, lines 40-42), applying the mixture onto the surface of a user selected item (col.4, lines 55-57), and dissolving the mixture into a user selected liquid (col.6, lines 8-10 such that algae can grow in aqueous systems such that it is necessary to dissolve the composition in the liquid in order to inhibit its growth). Regarding the concept of purification, the ('401) reference composition for example, purifies surfaces that may have algae thereon by inhibiting their growth.

6. Claims 61-66 are rejected under 35 U.S.C. 103(a) as being unpatentable over the specification in view of Terry et al (U.S.P.N. 6,596,401) and further in view of Minerovic et al (U.S.P.N. 5,997,814).

With regard to claims 60-66, both the disclosure and the ('401) reference fail to place the mixture in a filtration device in order to dissolve the mixture in a user-selected fluid. However, the ('814) reference teaches placing the mixture in a filtration device such that the fluid that enters the apparatus, i.e., a user selected fluid, passes through a

filter (22) and dissolves the mixture (powdered reagents inside cup C). As a result, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of the ('401) reference to include a filtration device in order to provide a source of sterile water by passing the water and blocking the passage of all particles the size of microbes and larger as taught by the ('814) reference (col.5, lines 5-7).

### ***Response to Arguments***

7. Applicant's arguments filed 07/05/2004 have been fully considered but they are not persuasive.

On page 13 of the Remarks section, applicant have amended the claims by deleting the term "comprising" and replacing it with the limiting term "consisting essentially of" to further clarify the novelty of the invention. However, the newly added term does not distant the scope of the instant claims with the ('401) reference. The term "consisting essentially of" means a composition that includes certain recited components and further can include other components that do not affect the function of such a composition. The ('401) reference includes the recited components in the instant claims and further includes more components that do not affect its function. As a result, of such amendment, the examiner has rejected the instant claims under obviousness.

On pages 13-14 of the Remarks section, applicant explains that "When the individual components were tested for their purification capacity it was several folds less effective than the particular combination claimed in this patent, exhibiting in effect a synergistic purification capacity many times greater than a mere sum of the individual

component's purification capacity." The specification on pages 3-10 teaches that metals, plant extracts and alcohols have been used individually as disinfectants in the art of purifying water. Further, the specification on pages 5-6 teaches that it is known to combine metals and plant extracts and to combine metals and alcohols as compositions for treating water. The ('401) reference discloses combining such disinfectants in a composition that includes a metal (col.13, lines 59-67), a plant extract (col.16, line 2) and an alcohol (col.7, lines 43-45). The composition of the ('401) reference is used as an antimicrobial agent, i.e., disinfectant (col.6, lines 3-5). As a result, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine components known as being individual disinfectants as disclosed in the specification since such a combination when added together results in a composition having antimicrobial properties as taught by the ('401) reference (col.5, lines 23-32).

### ***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

9. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any



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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MONZER R CHORBAJI whose telephone number is (571) 272-1271. The examiner can normally be reached on M-F 6:30-3:00.

11. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, ROBERT J WARDEN can be reached on (571) 272-1281. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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09/12/2004

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